like other better publicised ornamental aroids, has a peculiar and curious ornamental value which deserves promotion.

Tagetes minuta L. This interesting adventive extremely unimpressive in contrast to its very flamboyant cousins, the Marigolds (*T. erecta* L. & *T. patula* L.) is a weed. Commonly called the 'stinkweed' or 'stinking Roger' and listed as dangerous to live-stock in Australia, and notwithstanding its foul odour, it is said to be in use as a condiment in Hawai, and in medicine elsewhere in S. America, where it is native. N.C. Nair & P. C. Pant have described and recorded the distribution of this plant in Northwestern India [Bull. Bot. Surv. India 8 (1): 75-76. figs. 1-7. 1966]. In Shillong, during October 1964 one plant was spotted along a drain in the vicinity of Nazareth hospital, in the Laithumkhrah locality, and transplanted in a pot at the 'Woodlands' experimental garden. The next year, not only in the pot, but all around its vicinity a dense colony of *Tagetes minuta* L. had sprung up. A cursory count of achenes in one of these plants came to 1230. A few plants were made into specimens, and the rest except for one live plant, destroyed. In 1966, this lonely plant duly kept up the promise of a prolific progeny with a count of 360 plants, in an area of about 1.5 m diameter. This pattern of distribution of young plants surrounding the parent plant, indicated that the achenes must have splattered all around the parent. This observation and the fact that our original plant was also located near a drain, supports Ridley's remarks (dispersal of plants throughout the world, 217. 1930) that the manner of achene dispersal in *Tagetes minuta* L. appears to be by running or splasing water. The persisting and spreading capacities of many Asteraceae members are well known. This has been noted in detail in another adventive weed in India—*Parthenium hysterophorus* L. (Rao, R. S. in Journ. Bombay nat. Hist. Soc. 54: 218. 1956; Maheshwari, J. K. in Curr. Sc. 35: 181. 1966 & 37: 327. 1968). *Tagetes minuta* L. appears to be no less capable in this direction if allowed unchecked. In view of its obvious potential for becoming a prolific weed, all the plants in the 'Woodlands' garden were deliberately destroyed. Only voucher herbarium specimens: *G. K. Deka* 35866 Oct. 1964; *A. S. Rao* 36841, Oct. 12, 1965 and *G. K. Deka* 36841 A Dec. 20, 1966 are in the Kanjilal Herbarium (ASSAM).

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NOTES ON THE GENUS *SPERGULA* FROM GUJARAT STATE, INDIA

The genus *Spergula* is represented by only two species in India namely *S. arvensis* Linn. and *S. fallax* (Lowe) E. H. L. Krause (=*S. pentandra* Linn.). Both these species are fairly widespread in India as weeds of cultivation, although *S. fallax* (Lowe) E. H. L. Krause has not been reported from any locality in the erstwhile Bombay State as could be ascertained from available literature.

During the course of our investigations on the flora of north Gujarat, we have been able to collect large samples of *Spergula* plants from various localities. Their apparent morphological similarity has possibly resulted in the lumping of these plants under one name i.e. *S. arvensis* L. A critical examination of the fresh and herbarium material from different localities in Gujarat brought to light three distinct species found growing under similar conditions. The three species are 1. *S. arvensis* Linn. 2. *S. fallax* (Lowe) E. H. L. Krause and 3. *S. vernalis* Willd. For a easy identification. we give below a key.

KEY TO THE SPECIES

Styles 5 ... *S. arvensis*

Styles 3:
  Petals lanceolate, acute. Seeds with wings as broad as the seed body ... *S. fallax*

  Petals broad ovate, obtuse. Seeds with wings smaller than the seed body ... *S. vernalis*

Spergula arvensis Linn. Sp. Pl. 440; 1753.

The plants are slender herbs, branching from the base. Flowers are white and the sepals are slightly shorter than the petals. Styles are 5 and the seeds are very narrowly winged, unlike the other two species.

The species is the commonest (?) of all the Spergulas and is a weed of all temperate regions, now met with in almost every part of India.

S. fallax (Lowe) E. H. L. Krause in Sturm, Fl. Deutschland (ed. 2) 19, 1901. *Spergularia fallax* Lowe in Hook. Kew Journ. 8: 289, 1856.

S. pentandra Edgew. & Hook. f. Fl. Brit. Ind. 1: 243, 1872. *Arenaria flaccida* Roxb. Fl. Ind. 2: 447, 1832.

A slender, annual herb. Leaves fleshy, linear-subulate in false whorls. Stipules small, scarious. Flowers white, in much-branched cymes. Capsule ovoid-subglobose, 3 valved. Styles 3, persistent, recurved. Seeds winged, as broad as the seed body. Noted as a weed in cultivated fields and on sandy river beds.

Flowering and Fruiting: December to February.

Specimens examined: Khedbrahma, N. Gujarat, *Bhatt* 2412, 2467. It extends across N. Africa from Macronesia to India. In India it extends from Punjab, Bihar and Bengal to Gujarat and Saurashtra.

The first record of the occurrence of this plant is under Roxburgh's *Arenaria flaccida*, which was wrongly included by Edgeworth, Hooker and many others under *Spergula pentandra* Linn. "However, Roxburgh's name is illegitimate, since Clairvaux published an *Arenaria flaccida* based on a different type 21 years earlier. In 1856, Lowe published *Spergularia fallax* for the species in question, and fallax is thus the legitimate-epithet; however, the question remains: is it a *Spergula* or a *Spergularia*? In vegetative characters it certainly has more the appearance of a *Spergula* than a *Spergularia*, whereas its trimerous gynoecium would place it in *Spergularia* rather than *Spergula*, so that it effectively comes mid-way between the two. Some authors unite the two genera, and have 3 subgenera or sections, with *fallax* as a subgenus or section of its own. Others keep the 2 separate, placing *fallax* in *Spergula* indicating that the number of valves and styles is not of generic importance. Either way, the majority of authors place it in *Spergula* rather than follow Lowe"...(Personal communication from Dr. E. Milne-Redhead, Royal Botanic Gardens, Kew, England).

The plant has been reported as *Spergula pentandra* Linn. in various Indian regional floras. However, it does not find a place in any work on the flora of the erstwhile Bombay State. Hence, as far as could be ascertained from available literature, the plant is a new record for the Bombay State.

Spergula vernalis Willd. Fl. Berol. Prod. 158, 1809.

The plants are very similar to the preceding species, but can be differentiated by its broad ovate petals, obtuse at the tips. Stamens are with dilated filaments. Seeds are provided with narrower wings, apparently narrower than the seed body. The plants are found associated with *S. fallax* as weeds in certain winter crops, especially near irrigation channels.

Specimens examined: Naka Kalol, N. Gujarat *Bhatt* 2563; Anand, Kaira District, Gujarat State, *Thaker* 1060.

It is fcund throughout Europe and North Africa. The plant, as far as we are aware, has not been recorded from any locality in India.

The occurrence of the three apparently morphologically similar species of *Spergula* from Gujarat State, necessitates a careful scrutiny of all the herbarium material available in India in order to clear certain doubts about the distribution of these plants in the Indian subcontinent. From the examination of all the material available to us we are inclined to conclude that *S, vernalis* is the commonest of all; next comes *S. fallax*. *S. arvensis* is really not as common as it is believed to be. It is quite likely that this pattern of distribution of Spergulas in Gujarat may be true for the entire subcontinent.

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